

CLAIMS

What is claimed is:

1. A method for operating a wireless communication system of a type that transmits System Identification (SID) parameters to mobile stations, comprising:

storing a SID that identifies a Home service provider for the mobile station;

identifying a plurality of SIDs having a common spatial characteristic;

storing the identified plurality of SIDs in a memory that is accessible by a mobile station;

comparing a SID received from a wireless service provider to the stored plurality of SIDs; and

upon any one of the plurality of stored SIDs matching the received SID, declaring the wireless service provider as being a Home service provider for the mobile station.

2. A method as in claim 1, wherein the common spatial characteristic is comprised of a geographical area that corresponds to a postal zone.

3. A method as in claim 1, wherein the common spatial characteristic is comprised of a geographical area that corresponds to a ZIP code.

4. A method as in claim 1, wherein the steps of identifying, storing, comparing and declaring are executed only if the mobile station is classified as being in a Prepaid mode of operation.

5. A method as in claim 1, wherein if none of the plurality of stored SIDs matches the received SID, further comprising comparing the received SID to other stored SIDs, including at least one of a Partner SID, a Favored SID and a Forbidden SID.

6. A method as in claim 1, wherein if none of the plurality of stored SIDs matches the received SID, further comprising comparing a received System Operator Code (SOC) to stored SOCs, including at least one of a Partner SOC, a Favored SOC and a Forbidden SOC.

7 A method as in claim 1, and further comprising displaying a message to a user for informing the user that the user is operating in a Prepaid mode with one of a plurality of system providers having SIDs that are associated with a geographical area that is the user's home geographical area.

8. A method as in claim 1, wherein the step of comparing includes a preliminary step of comparing the received SID to the stored SID that identifies the Home service provider for the mobile station, and upon a match declaring the service provider to be the Home service provider, and inhibiting the execution of the step of comparing the SID received from a wireless service provider to the stored plurality of SIDs.

9. A method as in claim 1, wherein the common spatial characteristic is comprised of a geographical area that is defined by information received from a customer of a prepaid service provider.

10. A wireless communication system of a type that transmits System Identification (SID) parameters to mobile stations, comprising in mobile stations associated with a prepaid service provider at least one memory storing a SID that identifies a Home service provider for the mobile station and a list containing a plurality of other SIDs having a common spatial characteristic, the mobile station comprising a processor that is coupled to the at least one memory and that is responsive to a received SID for comparing the received SID to the SIDs in the list of SIDs and, upon any one of the plurality of SIDs matching the received SID, declaring a wireless service provider that transmitted the SID as being the Home service provider for the mobile station.

11. A system as in claim 10, wherein the common spatial characteristic is comprised of a postal zone, such as a ZIP code.

12. A system as in claim 10, wherein the common spatial characteristic is comprised of a geographical area that is defined by information received from a customer of the prepaid service provider.

13. A system as in claim 10, wherein if none of the plurality of other SIDs matches the received SID, the processor compares the received SID to other stored SIDs found in an Intelligent Roaming Data Base (IRDB).

14. A system as in claim 10, wherein if none of the plurality of other SIDs matches the received SID, the processor compares a received System Operator Code (SOC) to stored

SOCs found in an Intelligent Roaming Data Base (IRDB).

15 A system as in claim 10, and further comprising a display for displaying a message to a user for informing the user that the user is operating in a Prepaid mode with one of a plurality of system providers having SIDs that are associated with a geographical area that is the user's home geographical area.

16. A system as in claim 10, wherein the processor first compares the received SID to the stored SID that identifies the Home service provider for the mobile station, and upon a match declares the service provider to be the Home service provider, and inhibits comparing the received SID the list of other SIDs.

17. A mobile station, comprising:

a controller;

a wireless transceiver; and

at least one memory, the at least one memory comprising a location for storing a Home SID and other locations for storing a plurality of Cousin SIDs , wherein a SID received through said wireless controller is declared by said controller to be associated with a Home service provider if the received SID matches the stored Home SID or any one of the plurality of stored Cousin SIDs.

18. A mobile station as in claim 17 wherein the Cousin SIDs are stored into said memory under the direction of a prepaid service provider, and correspond to SIDs associated with one or more service providers that service a predetermined geographical area that is defined to be a non-roaming area of a customer of the prepaid service provider.

19. A mobile station as in claim 17, wherein the Cousin SIDs are stored in a memory that is detachable from said mobile station.

20. A method for operating a wireless communication system of a type that transmits System Identification (SID) parameters to prepaid mobile stations, comprising:

storing, in at least one memory that is accessible by a mobile station, a first SID that identifies a Home service provider for the mobile station and a plurality of second SIDs;

comparing a SID received from a wireless service provider to the first SID and upon the received SID matching the first SID, declaring the wireless service provider to be a Home category service provider for the mobile station; and

if the received SID does not match the first SID, comparing the received SID to the plurality of second SIDs and upon the received SID matching any one of the plurality of second SIDs, declaring the wireless service provider to be the Home category service provider for the mobile station.

21. A method as in claim 20, wherein if the received SID does not match any of the second SIDs, comparing the received SID to SIDs stored in an intelligent roaming data base (IRDB).

22. A method for operating a wireless communication system of a type that transmits System Identification (SID) parameters to prepaid mobile stations, comprising:

storing, in at least one memory that is accessible by a mobile station, a first SID that identifies a Home service provider for the mobile station and a plurality of second SIDs;

comparing a SID received from a wireless service provider to the plurality of second SIDs and upon the received SID matching any one of the plurality of second SIDs, declaring the wireless service provider to be a Home category service provider for the mobile station; and

if the received SID does not match any one of the plurality of second SIDs, comparing the received SID to the first SID and upon the received SID matching the first SID, declaring the wireless service provider to be the Home category service provider for the mobile station.

23. A method as in claim 22, wherein if the received SID does not match the first SID, comparing the received SID to SIDs stored in an intelligent roaming data base (IRDB).

24. A method for operating a wireless communication system of a type that transmits System Identification (SID) and System Operator Code (SOC) parameters to prepaid mobile stations, comprising:

storing, in at least one memory that is accessible by a mobile station, a SOC that

- identifies a Home service provider for the mobile station and a plurality of SIDs; comparing a SOC received from a wireless service provider to the stored SOC and upon the received SOC matching the stored SOC, declaring the wireless service provider to be a Home category service provider for the mobile station; and if the received SOC does not match the stored SOC, comparing a related received SID to the plurality of stored SIDs and upon the received SID matching any one of the plurality of second SIDs, declaring the wireless service provider to be the Home category service provider for the mobile station.
25. A method as in claim 24, wherein if the received SID does not match any of the second SIDs, comparing the received SID or SOC to SIDs or SOCs stored in an intelligent roaming data base (IRDB).
26. A method for operating a wireless communication system of a type that transmits System Identification (SID) and System Operator Code (SOC) parameters to prepaid mobile stations, comprising:
- storing, in at least one memory that is accessible by a mobile station, a SOC that identifies a Home service provider for the mobile station and a plurality of SIDs; comparing a SID received from a wireless service provider to the plurality of stored SIDs and upon the received SID matching any one of the plurality of stored SIDs, declaring the wireless service provider to be a Home category service provider for the mobile station; and if the received SID does not match any one of the plurality of stored SIDs, comparing a received SOC to the stored SOC and upon the received SOC matching the stored SOC, declaring the wireless service provider to be the Home category service provider for the mobile station.
27. A method as in claim 26, wherein if the received SOC does not match the stored SOC, comparing the received SID or SOC to SIDs or SOCs stored in an intelligent roaming data base (IRDB).